OUTPUT

Frequency

1 GHz

Level

+13 dBm ±2 dB into 50 ohms

STABILITY

Aging

1×10^{-6} first year

after 30 days operating, typical

5×10^{-7} second year, typical

3×10^{-7} per year thereafter, typical

Phase Noise L(f), typical

100 Hz	-109 dBc/Hz
1 KHz	-136 dBc/Hz
10 KHz	-153 dBc/Hz
100 KHz	-154 dBc/Hz

Temperature Stability

$\pm 5 \times 10^{-7}$, 0° to +50°C (Ref +25°C)

Harmonics

≤ -25 dBc

Sub-Harmonics

≤ -60 dBc

Spurious

≤ -80 dBc, excluding power supply line related spurs

MECHANICAL

Dimensions

2.25 x 4 x 1”

Connectors

SMA(f) and solder pins

Packaging

Nickel-plated machined aluminum housing – J1

Mounting

Threaded inserts on base, #2-56, 6 places

POWER REQUIREMENTS

Warm-Up Power

≤ 9.5 Watts for 5 minutes

Total Power

≤ 6.0 Watts at +25°C

Supply Voltage

+15 VDC ±5%

ADJUSTMENT

Mechanical Tuning

$\pm 4 \times 10^{-6}$

Electrical Tuning

$\pm 5 \times 10^{-7}$, ±5 VDC

Negative slope

CRYSTAL

Type

100 MHz SC-cut (x10)

OTHER

Label

Use conventional label with the following information:

501-24146 (Current Rev.)

1 GHz MXO-FR

+15 VDC

Serial # - Date Code

(Mark connectors with function)

Test Data

Output Level

Phase Noise

Temperature Stability

Harmonics, Subs, Spurious

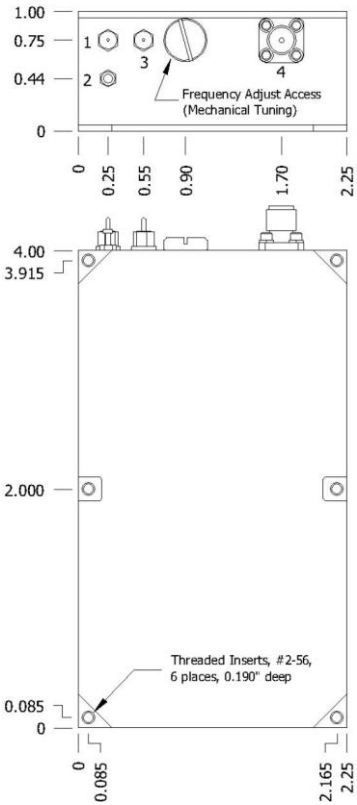
Power – Warm-up and Total

Tuning – MT and ET

REV	DATE	REVISION RECORD	DWN	AUTH
-	06-22-11	Initial Release	PAC	
A	01-16-12	Phase Noise, MT	PAC	

J1 MXO Connections

Connector	Function
1	Supply Voltage
2	Ground, Case
3	Electrical Tuning
4	RF Output



Wenzel Associates, Inc.

Austin, Texas

Title:

1 GHz Multiplied Crystal Oscillator (MXO-FR)

P/N:	Rev:	Date:	Drawn:	Ref:
501-24146	**A**	**01-16-12**		

Tolerances: (except as noted) Dimensions are in inches	0.XX Dec:	0.XXX Dec:	FSCM:	Page 1 of 1
	±0.030”	±0.010”	62821	